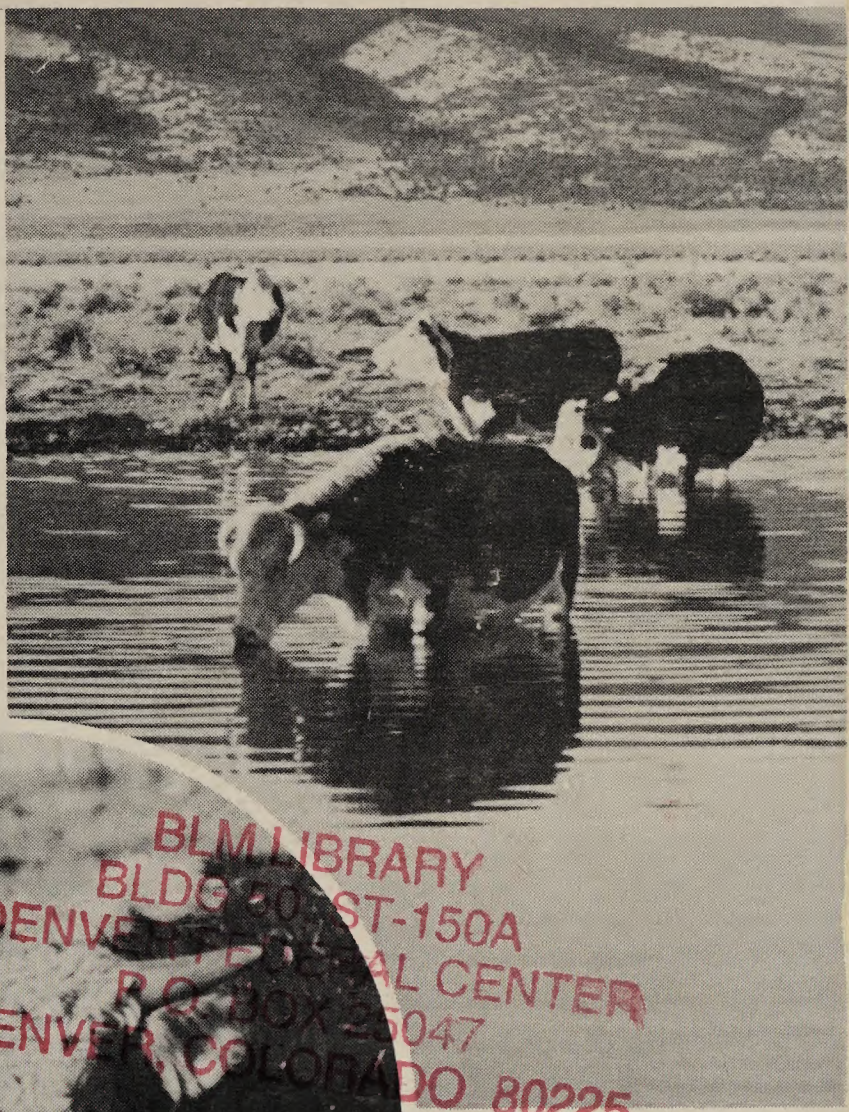
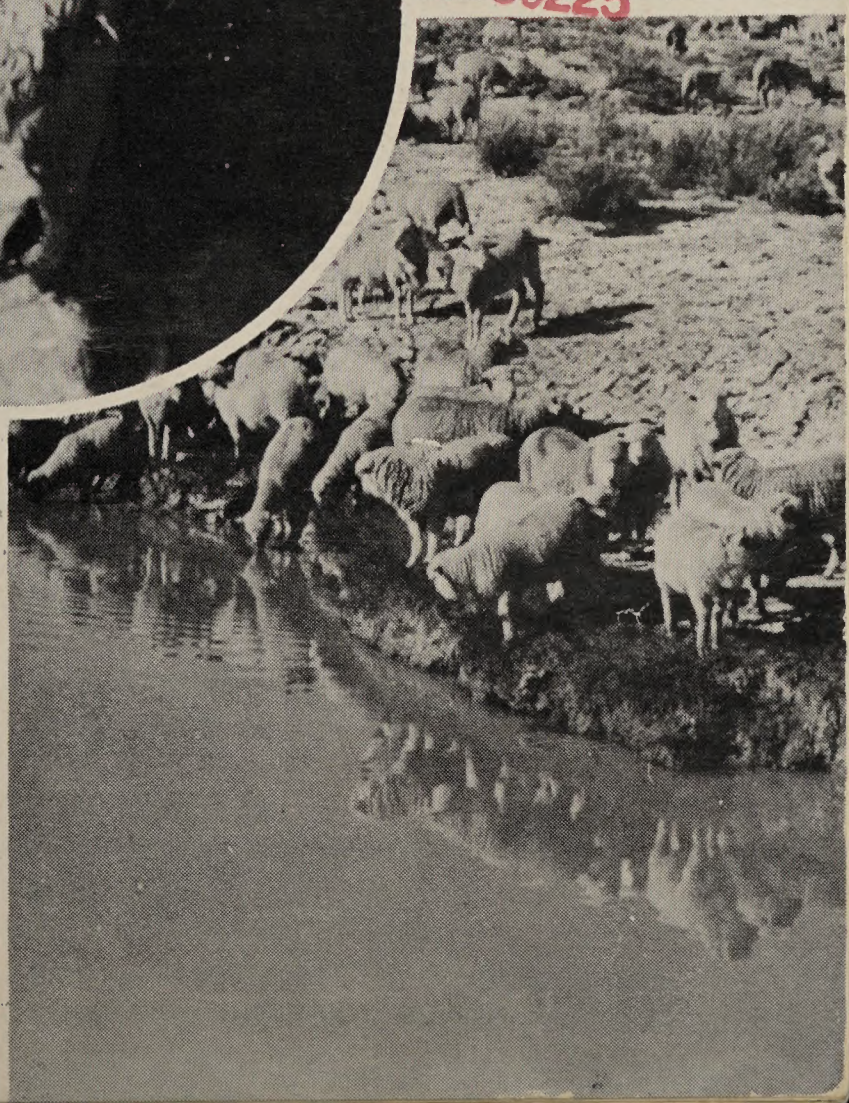
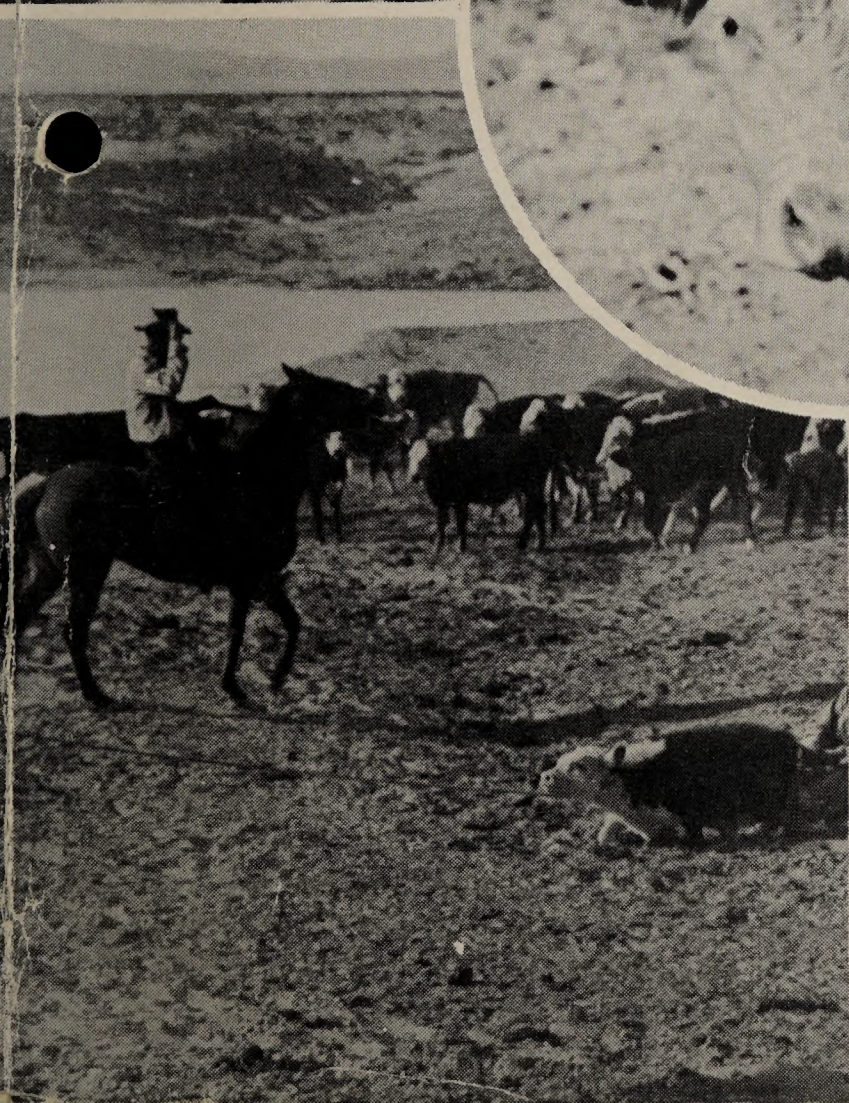


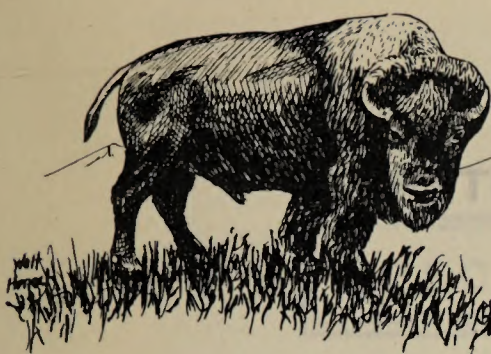
THE GRAZING BULLETIN

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THE GRAZING BULLETIN

Harold L. Ickes
Secretary of the Interior

John J. Dempsey
Under Secretary, in Charge of Grazing

R. H. Rutledge
Director of Grazing

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July 1941, Vol. 4, No. 3

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UNITED STATES
DEPARTMENT OF THE INTERIOR

GRAZING SERVICE

SALT LAKE CITY, UTAH

Harold L. Ickes, Secretary of the Interior
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SPECIAL ANNOUNCEMENT

* * * * *

The Grazing Service Moves West

The transfer of the staff of the Washington office of the Grazing Service to Salt Lake City, Utah has been announced as a defense measure to make available in the crowded National Capital space vital to emergency activities. The move is being consummated as promptly as possible.

The Director's office will continue to function as an independent unit within the Service and the move will in no way affect the present organization. The Grazing Service operates on a decentralized basis with most of its activity and personnel close to the communities with which it deals in the field.

Director R. H. Rutledge, in recommending the transfer, pointed out that, in addition to contributing to the relief of the housing and space emergency in Washington, the move of the Grazing Service to the West will make it possible more adequately to carry on the program of conservation of natural range resources, thereby constituting a direct aid to national defense. It will foster closer and more intimate relationships between the Service and the people of the range country and facilitate prompter attention to the problems on the public domain under Grazing Service jurisdiction in grazing districts of western United States.

This move is the first of an entire bureau made in response to a request to find Government space in the Capital for defense activities. A representative of the Service will remain in Washington for contact with various branches of the Government, and with other departments and bureaus with which the Grazing Service cooperates.

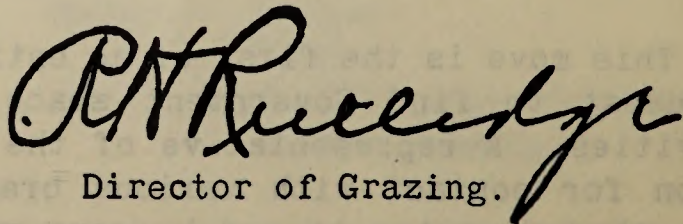
SEVEN YEARS OF RANGE CONSERVATION

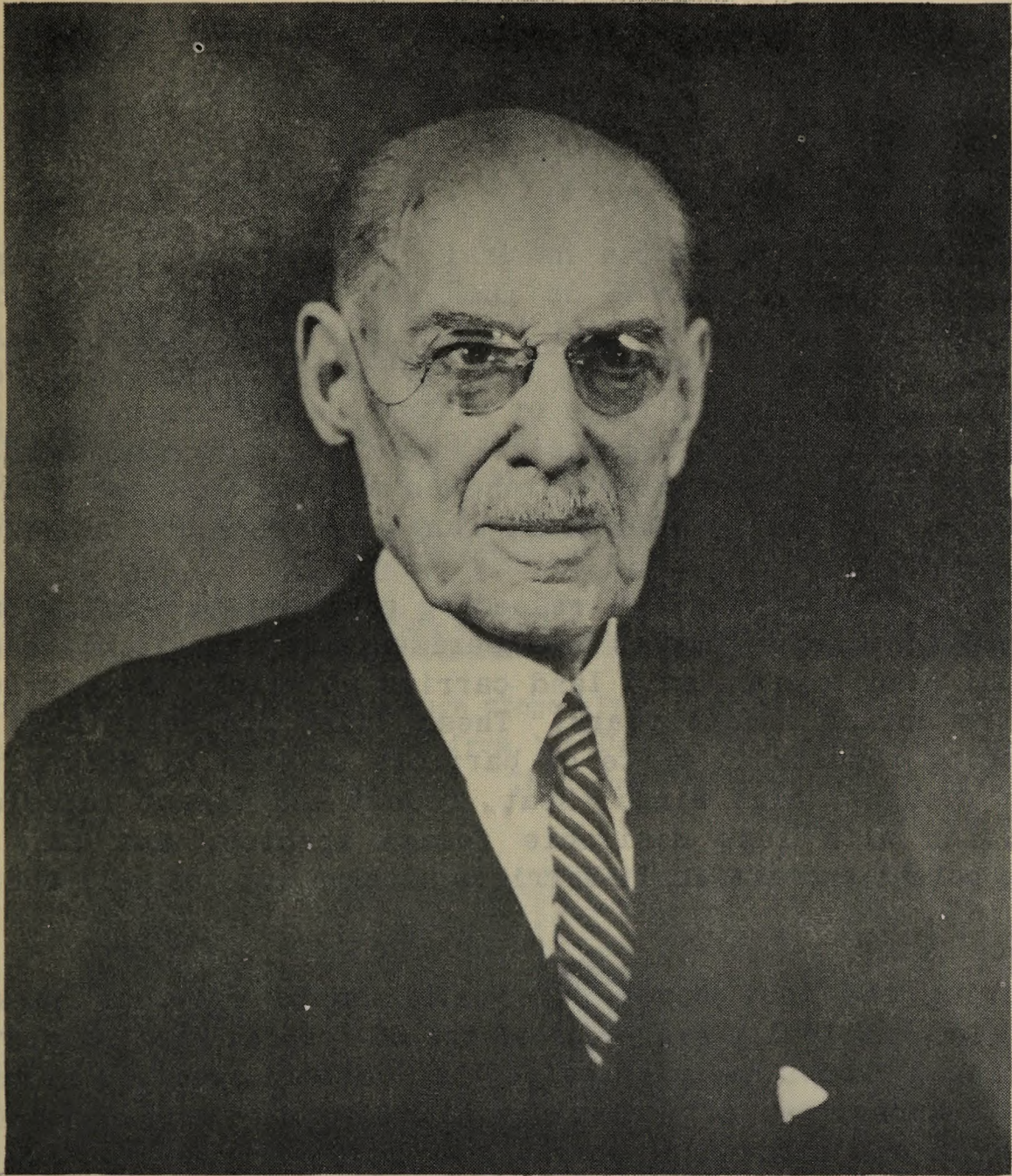
June 28, 1941 marked the seventh full year of western range conservation and rehabilitation under the Taylor Grazing Act.

That act was the answer to the need for orderly use and regulation of public grazing lands of the West. It came at a time when the western stockman, like the rest of the Nation, was recovering from the jolt of the depression following the first World War. The call to meet the increased needs of that war had been patriotically answered by the western stock growers, at the expense of the public range resource.

The past seven years have been years of organization and planning for range conservation and rehabilitation by the Grazing Service and the Federal range users. As forage on public lands within grazing districts begins to flourish again under practicable range regulation and range management, the Taylor Grazing Act stands out as a new influence on the resource it is intended to safeguard and on the livestock industry dependent upon that resource. Staunchest supporters of this plan of orderly range use and conservation are the stockmen themselves.

Today, while much of the world is embroiled in conflict, we Americans prepare to defend our land, our freedom, and our way of life. The western stockman is doing his part. Perhaps with his own sons in uniform, he is working longer hours to meet the maximum needs of our military and civilian arms of national defense and at the same time retain the gains made in recent years.


Director of Grazing.



THE HON. EDWARD T. TAYLOR

Friend of the West, distinguished public servant and representative of the people of Colorado, Congressman Taylor is also the author of more than a hundred Federal laws, among them one of the greatest conservation laws of our country--the Taylor Grazing Act. Such achievements speak for themselves.

Dean of the House of Representatives in point of age, Congressman Taylor has been elected to his high office by the people of Colorado 17 successive times and has an enviable record as a guardian of our natural resources and champion of the cause of conservation.

On the occasion of the seventh anniversary of the Taylor Grazing Act, the Grazing Service takes this opportunity to honor the man who has done so much for the stockmen of the West and for the nation.

RESEEDING TO INCREASE OUR RANGE HERITAGE

In an effort to hasten natural forage recovery on depleted ranges, the Grazing Service is this year undertaking one of the largest applications of reseeding experiments on desert areas ever attempted. Having established 500,000 acres of reseeded Federal range land in grazing districts of western United States as its goal for 1941, the Service is aggressively tackling a problem that is not a new one. It is a problem which has met in the past with both success and failure in efforts by range managers and range users.

Declaration of the 1941 reseeding goal was made after careful consideration of the results of experiments in artificial reseeding and trial plantings on arid land carried on within the Service and by others during recent years. These "test projects" have shown encouraging results in spite of barriers offered by Nature in the form of drought, high winds, heat, rodent and insect infestation, competition with less desirable forage species, and many other equally potent and difficult barriers along a not too well chartered path.

During the last couple of years sample seedings have been planted in practically every one of the 56 Federal grazing districts and periodic checks have indicated that certain species, planted at certain seasons, by particular planting methods, may reasonably be expected to flourish under normal conditions. Well over 500 trial plots have been established by the Grazing Service. More than 100,000 pounds of forage seeds have been collected. Nearly 250,000 acres of range land have already been covered by the revegetation program of the Service. Observations have been made and certain information assembled relating to adaptable species, seasons, planting methods, character of soil, necessary rainfall, proper elevations and related information. The new, enlarged project will be guided by these results and experiences.

Trial Areas

Range reseeding is not designed to produce a verdant stand of grass or weeds but is intended to add limited quantities of choice species of hardy plants to the range area. When seed is drilled, the rows are planted at relatively wide intervals as a reasonably complete growth of grass at such intervals is all the area may be expected to maintain. For example, at the Squaw Butte Range and Livestock Station in Oregon, dry sagebrush-covered areas were sown



Weeds that are noxious to agriculture crops often furnish useful and nutritious livestock forage. Here enrollees from the Delta, Utah side camp gather and sack seed from the prolific ragweed. This seed will be used in revegetating Federal ranges.

INTERIOR DEPT. Photos by Peart



broadcast with grass seed and the area was disked. The result was a fair stand of grass averaging at least one good crown to each two square feet. This was considered satisfactory because the normal rainfall in that section would probably not support a heavier addition to the present vegetation.

In New Mexico where it is similarly dry but the forage cover is entirely different, trial plantings were undertaken in the vicinity of Tularosa, New Mexico, on an area overrun with creosote and tar brush. Plots were planted to chamise (four-wing saltbush), winter fat, and blue grama grass. It was found that winter fat will grow on creosote-type land; that chamise will grow on the same land with protection against rodents and will double its growth in one year if given the advantage of contour furrowing to provide additional moisture. Equipped with the results of such trial seedings and with the testimony of old-timers and photographs as proof that barren land in that area at one time supported a good forage cover, a re-seeding project was planned and carried out with considerable success.

In Utah, the McCracken Mesa in the Monticello Grazing District provided an excellent location for trial seedings of slender and crested wheatgrass on sagebrush range at elevations over 6,000 feet. This mesa, which is bounded by natural barriers, at one time provided excellent range for sheep and cattle yearlong. However, as the country was settled and more stock were added, the abundant forage gave way to a forage stand of sagebrush and curly grass, with blackbrush at lower levels. Before the trial seeding was undertaken the immediate area was covered by a rodent-control project. Crested wheatgrass, slender wheatgrass, and chamise were then sown in both fenced and unfenced areas, and in various ways such as in rows after cultivation, broadcast with cultivation, covered in rows, covered and uncovered broadcast, et cetera. Approximately eight months after planting, in spite of drought conditions, all plots showed sufficient young plant growth to justify larger plantings of wheatgrass in the area with a degree of assurance of success with ordinary precipitation.

Results Analyzed

Data such as these accumulated within the Service and the results of experiments by other agencies and individuals evolve into a few tentative, general premises upon which the 1941 projects of the Grazing Service are being based.

1. Certain range plants have shown an aptitude for growing from seed in their own and other habitats. The choice of these plants and those shown by a reasonable percent of trials to be adaptable give promise of best results. Seeds of many of these species are not sold commercially and must be obtained by field collection. This means that preliminary planning for the collection of seed when it is available and planting when the proper season arrives are important to the success of reseeding.

2. The fall season appears to be preferable to the spring season for artificial reseeding on the bulk of western desert areas. In general, favored time is before the moisture season rather than after—even in low precipitation areas there are periods in the year of more than average precipitation. If seeding precedes a year of more favorable rainfall, more complete results are obtained. Nature's own scheme of reseeding is simulated.

3. The methods and implements vary with the topography, kind of soil, type of seed, facilities available, et cetera. Broadcast seeding by hand may be particularly adapted to an area or seed while standard seed and grain drills will be more practicable under other circumstances. Uncovered seeding is justified with certain seed, however, whenever possible seed should be covered and packed after planting.

Many ingenious methods of planting have been tried. Here is an example: In New Mexico a machine was developed which removed the brush and contoured the land in one operation. A 15-foot "I" beam was bolted at a slight angle to the grader blade of a heavy road grader. The beam uprooted the brush and a desired amount of dirt which were thrown up in contours as the grader was pulled along by a tractor. Seed was sown before this operation and was by it planted in the contours where it might receive the protection of the brush and the maximum amount of extra moisture held by the contour furrow.

4. Burned over areas offer prepared seed beds which may often be reseeded with considerable success. Native seed is here preferred.

Airplane seeding of burned areas while the ashes are still warm is often used on the west coast. The possibilities for seeding of burned areas on grazing districts by this method are being considered. Promptness of getting the seed onto soil prepared by burning is the important element.



(Above) Reseeding restores a heritage of inestimable value. By the use of hand drills CCC enrollees here tackle the job of reseeding Federal ranges in the vicinity of Dry Valley, Utah.

INTERIOR DEPT. Photo by Peart

(Below) Blue grama grass stands knee-high after two years of protection on the Magdalena Stock Driveway. Restoration of this range was by natural re-vegetation.

INTERIOR DEPT. Photo by Peart



5. Reseeding is often most needed where soils are not very productive. For this reason careful planning and knowledge of the soil and moisture peculiarities of the site must be at hand before the project is undertaken. Equally important are knowledge of the characteristics of the plant to be sown and the proper system of handling the seed.

6. The degree of success of a reseeded project may not be fully determined until several seasons have passed. Some seeds which fail to germinate the first season may come to life the second or third season.

7. Protection against damage by grazing is an apparent requirement on reseeded areas wherever practicable.

8. Damage by rodents should be controlled on areas to be brought within a reseeded project prior to planting.

9. Areas which may be revegetated naturally through proper range-management practices should be omitted from present planting programs.

A Trial Project in Utah

As an example of well planned reseeded projects we refer to the program of the Utah region for 1939-1940. Here data accumulated from trial areas throughout the State served as a guide to subsequent activities. A definite plan for initiating reseeded projects and keeping proper records was established. This plan involves (1) submission of a written plan indicating costs, dates of treatment, and other data, with maps, for approval before a project is undertaken; (2) annual or more frequent observations and recording of pertinent data, preferably at the end of the growing season; and (3) cumulative records of data, by projects, to be analyzed at the end of a chosen period of years. This record will show the degree of success, planting methods, costs, adaptability of species, dormant periods, invasion ability, soil data, and other factors.

At the Lucin, Utah CCC camp, enrollees gathered 1,266 pounds of filaree seed--a highly palatable, nutritious, early spring feed, proven in preliminary trials to be adaptable to artificial seeding. Other camps collected a considerable quantity of chamise, rice grass, and mat saltbush seed. These plants are some of the principal forage species on Utah's winter range. Seeds of other species such as crested wheatgrass, slender wheatgrass, rye, yellow sweet

clover, and strawberry clover were purchased from various commercial seed houses.

Areas best adapted and in need of reseeding were selected in the several grazing districts. With but few exceptions all areas reseeded were treated for the eradication and control of rodents before the seed was planted. In most cases plans were made for follow-up rodent control work in the spring of the year and periodic rabbit drives as needed.

In some districts, seed was sown broadcast--sometimes trampled in by sheep. In other areas the seed was dropped into contour furrows and covered with hand rakes. Hand planters, grain and beet drills, and disk harrows were also used. The planting method was determined in each case by such factors as accessibility of the area, equipment available, type of seed to be sown, soil type, and the presence of brush or other obstacles to more practical methods of doing the work.

In areas where the broadcasting method was used, CCC enrollees, carrying seed in bags, lined up and scattered the seed broadcast as they marched across the area. In other instances, enrollees riding on the rear of trucks and taking advantage of the wind or breeze, scattered the seed over wide areas.

In the Virgin Grazing District some 2,300 acres of crested wheatgrass were planted broadcast. The seed was tramped in by a herd of sheep drifting back and forth over the area.

A number of sections in the region were planted by dropping seed in contour furrows and having CCC boys follow along and cover the seed by hand rakes. These furrows were plowed at right angles to the slope of the land with the hope of catching runoff and also to accumulate snow in the furrow and thus store up and retain a supply of moisture for germination of the seed and establishment of the new growth.

A supply of junior hand seed planters were supplied each CCC camp having reseeding projects. In areas where practicable, these planters were pushed and pulled by enrollees who were lined up about three feet apart, to the right and rear of a leader. By this method planting was done across the slope of the land, drilling the seed in about one-half inch deep. Strips 25 to 30 feet wide were planted with a strip of equal size left between the planted strips which, it is hoped, will be naturally revegetated in favorable seasons by

seed from the planted areas. Hand seed planters were found to work satisfactorily in light textured soils and in areas of rough topography and brushy growth such as sagebrush and greasewood areas where it is impracticable to use truck-tractor or horse-powered drills.

A number of the areas were planted by the use of grain drills and beet drills. These drills were customarily powered by truck or tractor and strips the width of the drill were left between each drilling for seed to scatter from the planted areas as they became revegetated. The CCC camp at Antelope Springs worked out a novel idea for powering the beet drills. They shortened the wheelbase of an old truck to wagon dimensions and loaded the rear end for traction. This outfit proved very successful in getting over rough areas and increased the speed of planting.

Utah's Duchesne Grazing District employed the use of a sheeps-foot tamper in the reseeding projects in that district. The sheeps-foot tamper was powered by a caterpillar tractor with the planting being done at right angles to the slope of the land. Pulling this heavy sheeps-foot tamper over soils of light texture left indentations of about two inches in depth, approximately twelve inches apart. CCC enrollees, following behind the tamper, scattered the seed broadcast on the treated area. Seeds falling into the tamper indentations were slightly covered by use of hand rakes. This method relies upon moisture accumulating in the indentations and assures a maximum moisture supply for germination of the seed.

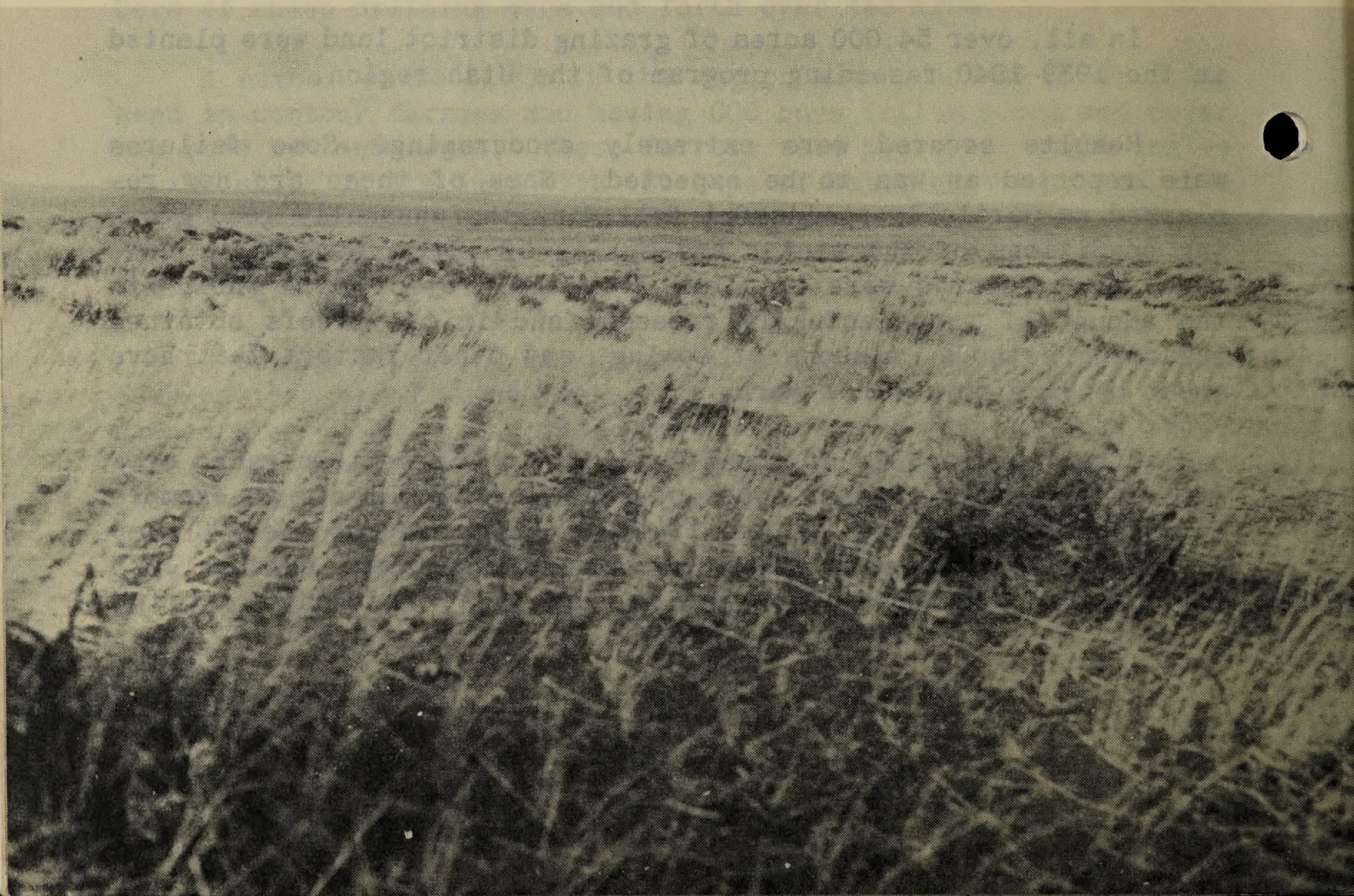
In all, over 54,000 acres of grazing district land were planted in the 1939-1940 reseeding program of the Utah region.

Results secured were extremely encouraging. Some failures were reported as was to be expected. Some of these are now reclassified as partially successful following the unusually good growing conditions of the winter and spring of 1941. Generally, however, full returns were obtained from the project as a whole--in the amount of range actually reseeded and in the proofs obtained regarding methods, seasons of sowing, and other factors that have great bearing on further work.

Often the results of trial seedings in the western range area exceeded even the fondest hopes of range and stockmen. An example of unlooked-for success is the little problem area of the CCC camp at Alkali Lake, Oregon (G-91). This camp was established in 1938 in a sandy area where the wind was so great that it created a



A short time before these pictures were taken the CCC camp at Alkali Lake, Oregon (G-91) was faced with a sand-blowing problem that affected the morale of the camp, damaged equipment, and lessened the efficiency of camp operation. A successful planting of rye grass has controlled the blowing of sand 85 per cent, boosted camp morale, and covered the sand dune with a blanket of green.



sand-blowing problem that not only affected the morale of the camp, but damaged equipment and lessened the efficiency of general camp operation. So great was the amount and power of the wind-blown sand that it was necessary to build special protective structures around the light plant to prevent damage to the motor; the State Highway Department found it necessary to maintain a sand-plow patrol system on the highway near the camp during the spring and summer to keep the road clear of drifting sand. In cooperation with the local County Agent, the Bureau of Plant Industry, and the Soil Conservation Service, a plan was devised to seed the area around the camp to rye.

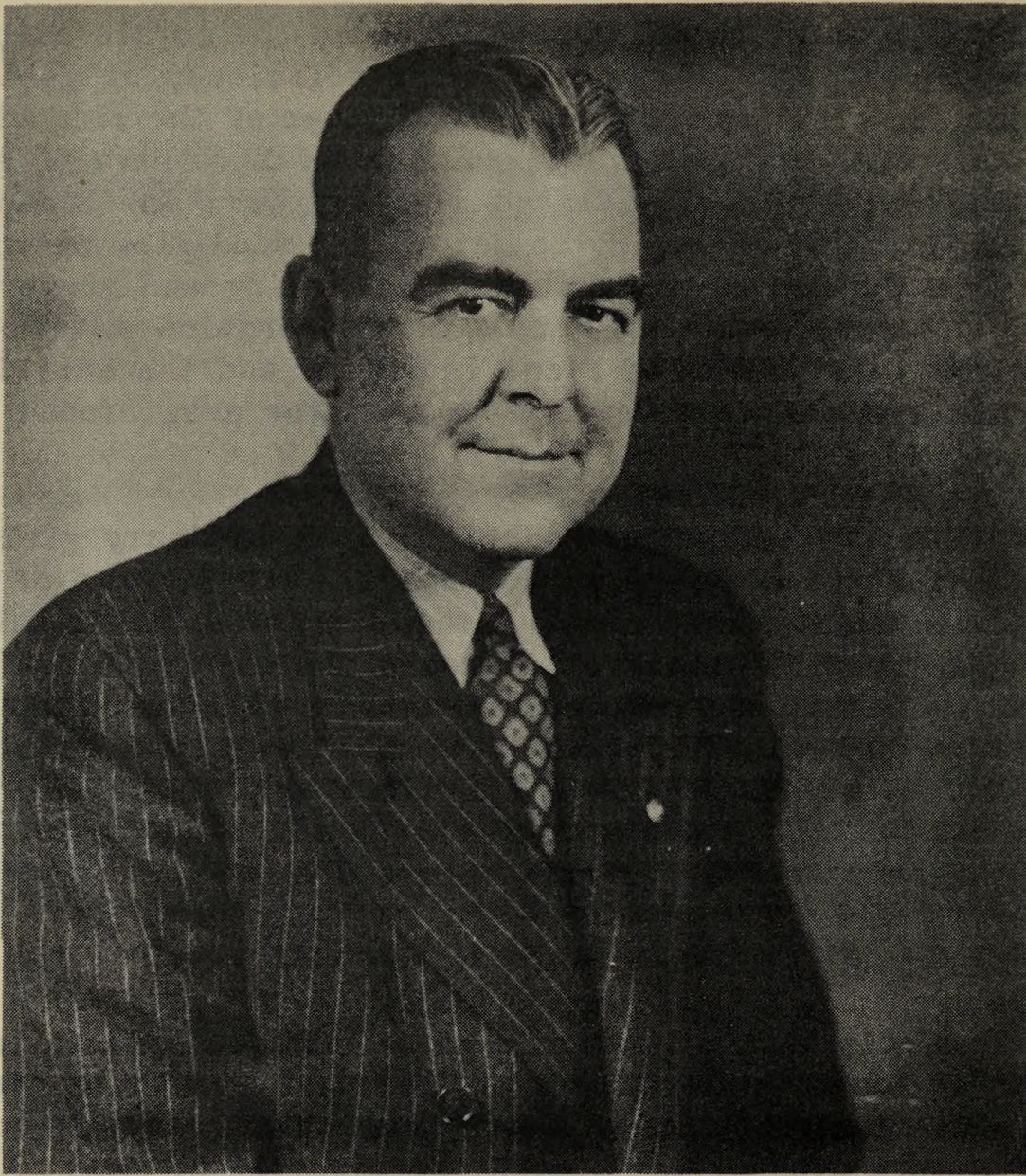
The seed was purchased and planted by ordinary grain drill. An excellent stand of grass was obtained. The blowing of the sand was controlled 85 percent and the damage to camp machinery minimized. At the same time the morale of the camp was boosted a hundred percent and the State Highway Department found little use for the sand-plow in that vicinity. The grass is now 12 to 15 inches high and its stand so healthy and strong that it looks almost as if a miracle had brought it about. On drifting sand dunes, 10 feet above the general level, there is now a blanket of green.

Conclusion

While a reseeding program such as is being undertaken on Federal ranges is no longer within the experimental stage there remain many factors which govern its complete success. For example, consecutive years of severe drought may prevent germination of seed or kill new plants; heavy grasshopper infestation would undoubtedly mar the success of the program. Under normal conditions, however, great gains in soil and moisture conservation, increased yields of forage, and reduction of undesirable plant species will be the natural result.

The results of trial projects to date have been sufficiently satisfactory to warrant the 1941 program. The degree of improvement in absolute forage production on this half-million-acre reseeded area, however, cannot be predicted. The results of the undertaking are awaited with interest by all individuals and agencies engaged in conservation activities.

While reseeding should not be considered as a cure-all, or be called upon to balance the effects of misuse or overgrazing, this effort is a long forward step. Planting and protecting new growth accents the other conservation features of the program for Federally owned grazing district lands administered under the terms of the Taylor Grazing Act.



A. D. Molohon

A. D. Molohon has been appointed Chief of Range Management for the Grazing Service to succeed E. N. Kavanagh who has been named Director of Soil Conservation, Office of Land Utilization.

In his new position Mr. Molohon will supervise range management work in the 56 Federal grazing districts established under the Taylor Act and will direct range management activities in the field offices of the Grazing Service throughout the ten western States.

Prior to his appointment to the management position, Mr. Molohon was Chief of the Branch of Range Improvements and Maintenance. He has been with the Grazing Service since its establishment following the passage of the Taylor Grazing Act in 1934 and has a wide knowledge of the problems of the western livestock industry dependent upon public range lands. He attended the University of Arizona and later was employed by the United States Forest Service in the Southwestern Region.

SUPREME COURT UPHOLDS VALIDITY OF TEMPORARY LICENSE SYSTEM

On May 26, 1941, the Supreme Court of the United States, in acting upon the Dewar grazing case, upheld the validity of the temporary grazing license system pending the issuance of 10-year grazing permits under the Taylor Grazing Act, thereby reversing the decision of the Nevada Supreme Court holding the temporary license system illegal.

Justice Owen J. Roberts wrote the Court's unanimous opinion in the case, saying that Congress, with "full knowledge" of the temporary arrangement, appropriated a portion of funds from the temporary licenses for range improvement. He said, "The repeated appropriations of the proceeds of the fees thus covered and to be covered in the Treasury, not only confirms the departmental construction of the statute, but constitutes a ratification of the action of the Secretary (of the Interior) as the agent of Congress in the administration of the act."

On the strength of the Supreme Court decision the Grazing Service will continue with confidence in the work of issuing temporary licenses until a determination can be made relating to the advisability of long-term use of the range and the practicability of the conversion of the temporary licenses into 10-year permits. It is expected that by July 1, approximately 12,000 licenses will have ripened into term permits; 8,000 licenses will be continued on the temporary basis until there is justification for the 10-year permits.

In speaking of the Supreme Court decision, Director R. H. Rutledge said: "The Nevada case will be an important one in the history of administration of public lands. It upholds the authority of the Secretary of the Interior to issue rules and regulations for the management of the public ranges. It clarifies the situation on the grazing districts and sets at rest any doubts as to the legality or propriety of using grazing fee monies as may be appropriated by Congress for the construction of needed improvements on the range. It will enable continued improvement of the range and benefit to the counties within which the Federal range is situated."

The text of the Supreme Court decision follows:

| | | |
|---------------------------|---|------------------------------|
| L. R. Brooks, Petitioner, |) | On Petition for Writ of Cer- |
| vs. |) | tiorari to the Supreme Court |
| Archie Dewar, et al. |) | of the State of Nevada. |

[May 26, 1941.]

Mr. Justice ROBERTS delivered the opinion of the Court.

The respondents brought suit in a Nevada District Court to enjoin the petitioner from barring, or threatening to bar, them from grazing their livestock within Nevada Grazing District No. 1 in default of the payment of certain grazing fees and in default of their holding a license permitting such use of the public lands by them. The bill alleged that the respondents were, and for years had been, in the business of breeding, raising, grazing, and selling livestock within Nevada and within the district; that it was impossible for them to own or lease all the land needed for their business and they owned or leased a small portion of the required land and used vacant unappropriated and unreserved public lands of the United States to satisfy the remainder of their grazing requirements; that their financial and business necessities made it impossible to continue to operate if their ability to graze their livestock on the public range were seriously impaired or interfered with. They averred that, until May 31, 1935, they had been impliedly licensed by the United States to graze livestock on portions of the public range in Nevada.¹ They recited the passage by Congress of an Act of June 28, 1934,² and alleged that, on April 8, 1935, the Secretary of the Interior, in accordance with the provisions of the Act, established a grazing district known as Nevada Grazing District No. 1, which included portions of the public range upon which the respondents had theretofore grazed their livestock and that, on May 31, 1935, the Director of Grazing, with the approval of the Secretary, had promulgated rules which required all persons grazing within the district to obtain temporary licenses so to do, for which no fees were to be paid; that, pursuant to the rules, the respondents obtained temporary licenses; that, on March 2, 1936, after an investigation by the Secretary, the Director of Grazing, with the approval of his superior, purporting to act under the authority of § 2 of the Act of June 28, 1934, promulgated rules for the administration of grazing districts, which provided for the issue of temporary licenses to expire on a date named in 1937 or upon the issue of permits provided for by § 3 of the Act, for which licenses graziers were to pay a fee of five cents per month for each head of cattle and a fee of one cent per month for each head of sheep for the privilege of grazing; that the rules further provided that, after issue of the temporary licenses, no stockman should graze livestock upon, nor drive them across, the public range within a grazing district without a license. The complaint recited that, about May 1, 1936, the respondents were notified by the Register of the District Land Office that licenses would be granted them upon payment of

the first installment of the grazing fees and that shortly thereafter the defendant, Brooks, who was acting as Regional Grazier of the United States, notified the respondents that unless they paid the installments and obtained licenses by June 15th they would be considered in trespass under the terms of the Act of 1934 and would be punished by fine as provided in the Act. The respondents alleged with particularity the urgent necessity in the conduct of their business that they be permitted to graze their cattle on public lands and that, unless they can do so, they will suffer irreparable and serious damage due to the destruction of their business. The bill charges that although the Secretary in promulgating the rules with respect to temporary licenses purported to act under the authority of § 2 of the Act of 1934, that section confers upon him no power so to do and that grazing fees specified by the rules were fixed without any attempt to determine their amounts as required by § 3 of the Act and in violation of conditions prescribed by § 3.

The petitioner demurred and assigned as reasons that the complaint failed to state facts sufficient to constitute a cause of action against him; that there was a defect of parties defendant for failure to join the Secretary of the Interior; that as the United States, an indispensable party, had not consented to be sued, the court was without jurisdiction; and that the subject matter of the complaint was exclusively within the political power of the United States and not subject to judicial review. The court overruled the demurrer, with leave to answer. The petitioner elected to stand upon his demurrer and the court thereupon entered a decree in favor of the respondents, which the Supreme Court of Nevada affirmed.^{3/} We granted certiorari because of the importance of the questions involved.

By § 1 of the Act of 1934, the Secretary of the Interior is authorized to establish grazing districts not exceeding in the aggregate an area of 80,000,000 acres out of certain unappropriated and unreserved public lands of the United States^{4/} if the lands, in his opinion, are chiefly valuable for grazing and raising forage crops. Before any district is created a hearing is to be held after notice at which officials and persons interested are to be heard. Section 2 provides:

"The Secretary of the Interior shall make provision for the protection, administration, regulation, and improvement of such grazing districts as may be created under the authority of the foregoing section, and he shall make such rules and regulations and establish such service, enter into such cooperative agreements, and do any and all things necessary to accomplish the purposes of this Act and to insure the objects of such grazing districts, namely, to regulate their occupancy and use, to preserve the land and its resources from destruction or unnecessary injury, to provide for the orderly use, improvement, and development of

the range; . . . and any willful violation of the provisions of this Act or of such rules and regulations thereunder after actual notice thereof shall be punishable by a fine of not more than \$500."

Section 3 authorizes the Secretary to issue permits to graze livestock in grazing districts "upon the payment annually of reasonable fees in each case to be fixed or determined from time to time." It commands that preference be given, in the issue of permits, to certain persons described in the section and that no permittee who complies with the rules and regulations of the Secretary shall be denied the renewal of his permit if such denial will impair the value of the permittee's grazing unit when such unit is pledged as security for any bona fide loan. The permits are to be for a period of not more than ten years subject to the preferential right of the permittee to renewal in the discretion of the Secretary. There are other provisions for adjustment of the amount of grazing to be permitted under the permits and a corresponding adjustment of the grazing fees in the case of the occurrence of range depletion due to natural causes.

By § 10 it is provided that all moneys received under the authority of the Act are to be deposited in the Treasury of the United States and twenty-five per cent of such moneys received from any district in a fiscal year is made available, when appropriated by the Congress, for expenditure by the Secretary for range improvements and fifty per cent of such money received from a district in any fiscal year is to be paid, at the end of the year, by the Secretary of the Treasury, to the state in which the grazing district is situated to be expended by the state for the benefit of the counties in which the district lies.5/

The petitioner asserts that the judgment below should be reversed because the suit is one against the United States; because the Secretary of the Interior is an indispensable party, and because the State court was without power to enjoin a federal officer. He admits that earlier cases in this court are against his contention but relies on others which he says sustain his view. As this Court remarked nearly sixty years ago respecting questions of this kind, they "have rarely been free from difficulty" and it is not "an easy matter to reconcile all the decisions of the court in this class of cases."6/ The statement applies with equal force at this day. We are not disposed to attempt a critique of the authorities. Since the jurisdiction and the procedure of the court below is sustained by decisions of this Court, we are unwilling to base our judgment upon a resolution of asserted conflict touching issues of so grave consequence where, as here, the bill fails to make a case upon the merits.

The respondents say that, under the Act of 1934, the Secretary is powerless to grant temporary licenses and charge fees therefor; that his sole authority is to issue permanent permits for specified periods not to exceed ten years, at fees adjusted to the circumstances of individual permittees, and with

preferential rights of renewal. If this view be correct it might well be years before the Secretary could place the users of lands in any district under permits. The petitioner asserts that it was not the intent of Congress that the grazing lands should go unregulated and without license for any such extensive period as would be required for the issue of permits under § 3. He relies on the broad powers conferred by § 2 and points out that the section is a replica of the statute involved in United States v. Grimaud, 220 U. S. 506, and there held to authorize similar rules and regulations.

With knowledge that the Department of the Interior was issuing temporary licenses instead of term permits and that uniform fees were being charged and collected for the issue of temporary licenses, Congress repeatedly appropriated twenty-five per cent of the money thus coming into the Treasury for expenditure by the Secretary in improvements upon the ranges.^{7/} The information in the possession of Congress was plentiful and from various sources. It knew from the annual reports of the Secretary of the Interior that a system of temporary licensing was in force.^{8/} The same information was furnished the Appropriations Committee at its hearings.^{9/} Not only was it disclosed by the annual report of the Department that no permits were issued in 1936, 1937, and 1938, and that permits were issued in only one district in 1939, but it was also disclosed in the hearings that uniform fees were being charged and collected for the issue of temporary licenses. And members from the floor informed the Congress that the temporary licensing system was in force and that as much as \$1,000,000 had been or would be collected in fees for such licenses.^{10/} The repeated appropriations of the proceeds of the fees thus covered and to be covered into the Treasury, not only confirms the departmental construction of the statute,^{11/} but constitutes a ratification of the action of the Secretary as the agent of Congress in the administration of the act.^{12/}

The judgment is reversed and the cause remanded for further proceedings not inconsistent with this opinion.

WARNER W. GARDNER (FRANCIS BIDDLE, Solicitor General, NORMAN M. LITTELL, Assistant Attorney General, CHARLES R. DENNY and VERNON L. WILKINSON with him on the brief) for petitioner; MILTON B. BADT (R. R. IRVINE, JOHN HOWLEY and WILLIAM J. DONOVAN with him on the brief) for respondents.

^{1/} See Buford v. Houtz, 133 U. S. 320; Omaechevarria v. Idaho, 246 U. S. 343.

^{2/} c. 865, 48 Stat. 1269, as amended by Act of June 26, 1936, c. 842, 49 Stat. 1976, 43 U. S. C. Supp. V, § 315 et seq.

^{3/} — Nev. —, 106 P. (2d) 755.

^{4/} Increased to an aggregate of 142,000,000 acres by the amendatory Act of June 26, 1936, supra, Note 1.

- 5/ By § 11 provision is made for disposition of moneys received from districts located on Indian lands. Twenty-five per cent is made available, when appropriated for expenditure by the Secretary for range improvement.
- 6/ *Cunningham v. Macon & Brunswick R. R. Co.*, 109 U. S. 446, 451.
- 7/ Act of June 22, 1936, c. 691, 49 Stat. 1757, 1758; Act of August 9, 1937, c. 570, 50 Stat. 564, 565; Act of May 9, 1938, c. 187, 52 Stat. 291, 292; Act of May 10, 1939, c. 119, 53 Stat. 685, 687; Act of June 18, 1940, c. 395, Pub. No. 640, 76th Cong., 3d Sess. The form of the Appropriations Act of June 22, 1936, is typical. It is: "For construction, purchase, and maintenance of range improvements within grazing districts, pursuant to the provisions of sections 10 and 11 of the Act of June 28, 1934 (48 Stat., p. 1269), and not including contributions under section 9 of said Act, \$250,000: Provided, That expenditures hereunder in any grazing district shall not exceed 25 per centum of all moneys received under the provisions of said Act from such district during the fiscal years 1936 and 1937."
- 8/ Annual Report Secretary of the Interior 1936, pp. 16-17. Id., 1937, pp. xii, 102, 105-107. Id., 1938, pp. xv, 107.
- 9/ Hearings Subcommittee of House Committee on Appropriations on H. R. 10,630, 74th Cong., 2d Sess., pp. 13-15; Hearings Subcommittee of House Committee on Appropriations on H. R. 6958, 75th Cong., 1st Sess., pp. 80, 83, 89; Hearings Subcommittee of House Committee on Appropriations on H. R. 9621, 75th Cong., 3d Sess., pp. 65, 70, 71; Hearing Subcommittee of Senate Committee on Appropriations on H. R. 9621, 75th Cong., 3d Sess., pp. 3, 28, 29.
- 10/ 81 Cong. Rec., part 4, pp. 4570-4571; 83 Cong. Rec., part 11, p. 2376; 84 Cong. Rec., part 13, pp. 2931, 2932, 2933.
- 11/ *Wells v. Nickles*, 104 U. S. 444, 447.
- 12/ *Isbrandtsen-Moller Co. v. United States*, 300 U. S. 139, 147.

* * *

"Keep 'Em Flying!"



A thousand cattle can be accommodated at this important Utah range outpost known as the Poverty Flat Development. Here are water facilities, corrals, and loading chutes where stock can be held until trucked to the railhead at Thompsons, Utah or driven over a fenced driveway to Moab. The development was built by the Grazing Service with money supplied by the 50 per cent fund.

INTERIOR DEPT. Photo by Peart

HATCHET MOUNTAIN WATER DEVELOPMENT

The Grazing Service, in the rehabilitation and conservation of range lands within Federal grazing districts looking toward the stabilization of the livestock industry dependent upon those lands, has found it possible at the same time to aid in the conservation and propagation of a vanishing species of wildlife--namely, the big horn or mountain sheep.

Atop Big Hatchet Mountain in New Mexico, a natural habitat for the big horn, a game preserve was created some years ago. However, in spite of the protection thus afforded and the fact that there is a law against killing these animals, there was indication that little or no increase in their numbers had occurred during the past 15 years. In search of an explanation for this it was discovered that, because of a lack of water on the mountain proper during dry seasons of the year, the sheep were forced to leave the mountain fastness in search of water at the risk of depredations of predators and poachers. According to legend there were springs and water courses that serviced the mountain in early days but an earthquake in the 90's opened fissures in the earth which allowed the water to disappear.

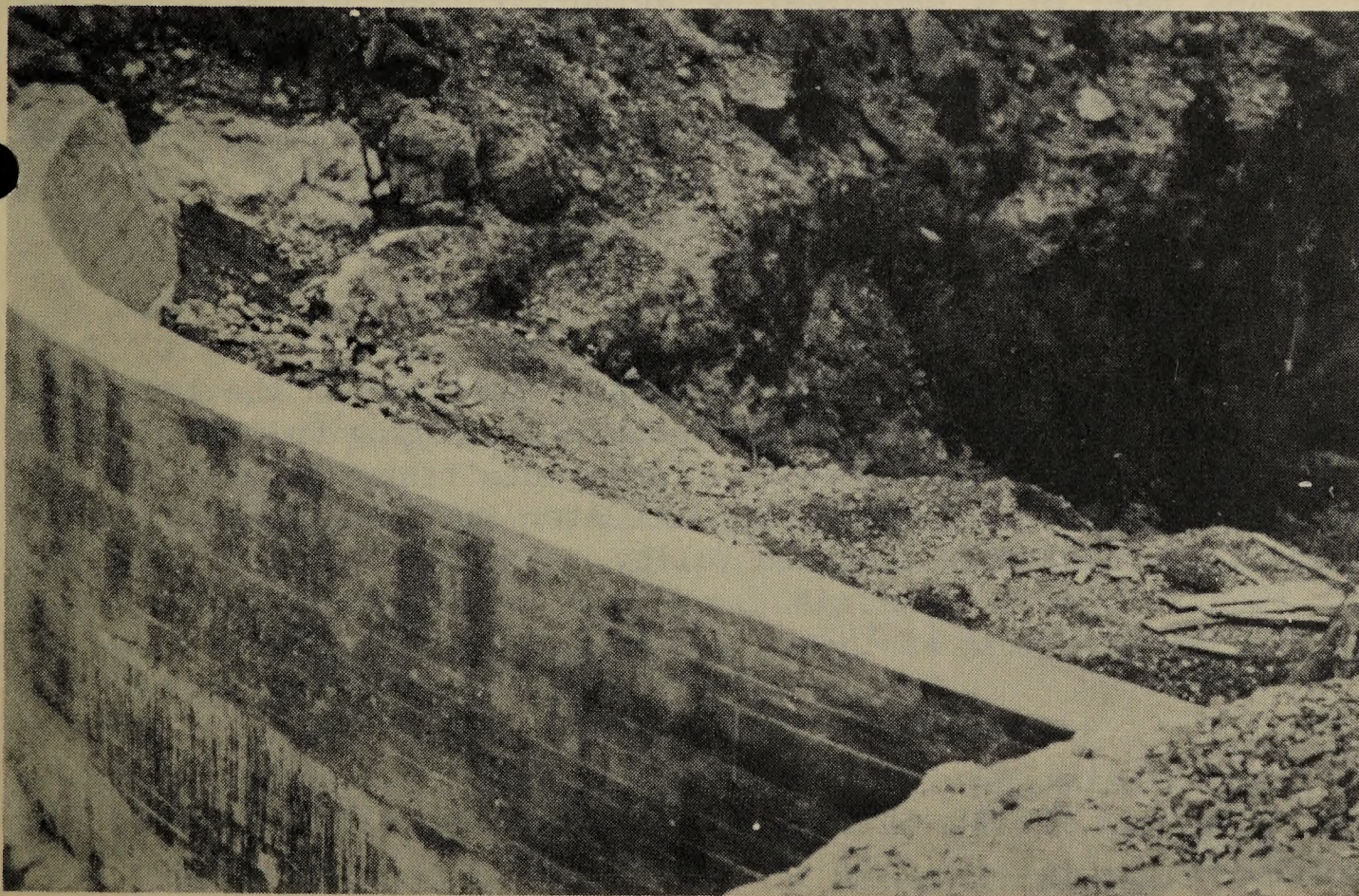
To equalize the distribution of livestock adjacent to the game preserve and at the same time to provide a source of water supply the Grazing Service, the Fish and Wildlife Service, the State Game Department, and local livestock interests together developed a plan of artificial water development that is expected to benefit both wild and domestic animal life.

Three rubble masonry dams have been completed in widely separated points providing storage for approximately 12 acre feet of flood water. The largest, near the summit of the mountain, was constructed only after trails had been built over which necessary materials might be hauled.

Known as the Hatchet Mountain Water Development, this co-operative project is the largest of its kind yet undertaken in southern New Mexico for the mutual benefit of big game and livestock. Construction began in August 1940 and was completed early this year. The cost of the development--approximately \$5,000--was shared jointly by the State Game Department, private persons, and the Grazing Service 25 percent fund. The labor was furnished by the CCC camp assigned to the Grazing Service in that area.



Pack trains were used to transport sand, cement, and other supplies and camping equipment to the top of Big Hatchet Mountain in New Mexico for use in the construction of Thompson Canyon Dam (below) and two other rubble masonry dams to provide water for one of the few remaining herds of big horn sheep. Local livestock and wildlife interests cooperated in the project.



The cooperation manifested in this project by so many interested groups reflects the close relationship between stock raising and wildlife in the Border Grazing District and is a major step in a continuing program of range development that will benefit both livestock and game animals.

The Big Hatchet Mountain which stands like an armed sentinel to a height of 8,700 feet, breaks off abruptly on the western side in a manner which suggests the name given to it by the Indians many years ago. It has long been well known for the excellent forage it produces and as a natural habitat for one of the few remaining herds of the big horn or mountain sheep.

President Roosevelt has appointed Secretary of the Interior Harold L. Ickes as Petroleum Coordinator for national defense.

In this capacity, Secretary Ickes will determine the military and civilian needs for petroleum and petroleum products, the factors affecting continuous ready availability of these products for those needs, and any action proposed which will affect such availability. He will make specific recommendation as to action necessary or desirable to insure the maintenance of a ready and adequate supply of petroleum and petroleum products.

The need of a coordinating authority over oil and gas has recently been evident. The supply of these products of the petroleum industry, through the coordinating office, will be accommodated to the needs of the unlimited national emergency proclaimed by President Roosevelt May 27, 1941.

We have received numerous inquiries relative to the locale of the picture on the cover of the April 1941 Grazing Bulletin. This picture was taken in the Rifle Grazing District (Colorado No. 7) and shows calves belonging to James Luster following the Shelf Rock Trail from Pinon Mesa to Grand Valley.

The Grazing Service joins the rest of the Nation in a toast to the progress of the entire National Defense effort: "KEEP 'EM FLYING!"

GRAZING SERVICE AND THE DEFENSE TRAINING PROGRAM

As part of the National Defense Training Program, Grazing Service personnel in CCC camps throughout Federal grazing districts of western United States are earnestly cooperating with the Army in the instruction of vocations vitally important in the present national emergency.

Auto mechanics, welding, radio transmission and repair, carpentry and drafting are just a few of the many types of training being made available in camp classes through the efforts of local and State Boards of Vocational Training, the Army, and the Grazing Service.

In one camp in Oregon (G-68, Frederick Butte) where the camp mechanic, Grant Green, is a qualified pilot and expert aviation mechanic, a class in mechanical aviation is being enthusiastically received. In a temporary hangar built by the camp from lumber donated by local people, a plane belonging to Mechanic Green is used for demonstration and practical tests. The district headquarters of the Army at Vancouver has also loaned to the class a 600 horsepower airplane motor for study and demonstration.

* * *

The Grazing Service has entered into a field agreement with the Western Division Laboratory of the Agricultural Adjustment Administration in Salt Lake City, looking toward coordination in the production of maps of public land States and full utilization of existing Government facilities for specialized work.

Under the new agreement negotiated by Chief of Range Surveys E. R. Greenslet, the laboratory of the Agricultural Adjustment Administration will make available to the Grazing Service its modern photographic and mapping equipment as well as the services of its specialized, technical personnel on mutually agreed upon projects. It will be reimbursed by the Grazing Service on the basis of actual cost of labor and materials. In this way it will be possible to obtain aerial photographs of grazing district areas difficult to map any other way without duplicating elaborate facilities necessary for this type of work.

* * *

"Keep 'Em Flying!"

"Keep 'Em Flying!"

GRAZING SERVICE INSIGNIA ADOPTED

An official Grazing Service insignia has been approved by the Secretary of the Interior and is now being drafted in final form. The design which was selected is in the shape of an Indian arrowhead in the center of which are the Interior Department emblem and the words "U. S. Grazing Service." The emblem will be used on official Grazing Service signs and for other purposes. It was designed by Associate Range Examiner Leon R. Nadeau and Junior Grazier Aide H. A. Pollard, both of the Idaho region.

"Keep 'Em Flying!"

A new Division of Power has been created in the Department of the Interior. All functions in connection with electric power matters in the Department, the study of power problems, and the coordination of power policies and activities within the Department and with other agencies will come under the jurisdiction of this office. Mr. Abe Fortas has been designated Acting Director of the new Division.

"Keep 'Em Flying!"

Remeasurement of the United States in connection with the 1940 census shows that the land area of the country increased from 2,973,776 square miles in 1930 to 2,977,128 square miles in 1940--an increase equivalent to the total area of Delaware and Rhode Island combined. This is reported to be due primarily to a rather general decrease in the inland water area of the country.

"Keep 'Em Flying!"

Under the Federal Mine Inspection law, the Secretary of the Interior is authorized, through the Bureau of Mines, to enter and inspect coal mines to obtain information about conditions that may be hazardous to the health and safety of the workers in the mine. While the act does not grant enforcement power, it does provide for full publicity of findings concerning unhealthy and unsafe conditions, and relies upon the force of public opinion to effect necessary changes.

"Keep 'Em Flying!"

SUMMARY OF GRAZING LICENSES AND PERMITS ISSUED BY THE GRAZING SERVICE

UNITED STATES DEPARTMENT OF THE INTERIOR, FOR THE YEAR 1940

| STATE | NUMBER OF DISTRICTS | NUMBER OF LICENSES | CATTLE | HORSES | SHEEP | GOATS | TOTAL LIVESTOCK |
|------------|---------------------------|--------------------------|-----------|---------|-----------|---------|--------------------|
| Arizona | 4 | 596 | 74,533 | 3,197 | 241,295 | 30,441 | 349,466 |
| California | 2 | 675 | 69,945 | 3,347 | 235,215 | 1,161 | 309,668 |
| Colorado | 6 | 1,707 | 155,082 | 8,984 | 701,877 | 95 | 866,038 |
| Idaho | 5 | 3,694 | 173,150 | 15,377 | 1,386,870 | 76 | 1,575,473 |
| Montana | 6 | 1,389 | 119,404 | 19,101 | 856,730 | 29 | 995,264 |
| New Mexico | 7 | 3,343 | 253,820 | 21,234 | 652,582 | 92,875 | 1,020,511 |
| Nevada | 5 | 1,958 | 257,799 | 13,686 | 1,090,290 | 2,820 | 1,364,595 |
| Oregon | 7 | 1,355 | 160,468 | 11,706 | 410,287 | ---- | 582,461 |
| Utah | 9 | 5,281 | 183,114 | 10,060 | 2,066,423 | 17,752 | 2,277,349 |
| Wyoming | 5 | 1,545 | 153,961 | 14,371 | 1,569,809 | 271 | 1,738,412 |
| Totals | 56 | 21,543 | 1,601,276 | 121,063 | 9,211,378 | 145,520 | 11,079,237 |

GRAZING LICENSES AND PERMITS ISSUED BY THE GRAZING SERVICE

UNITED STATES DEPARTMENT OF THE INTERIOR

1940

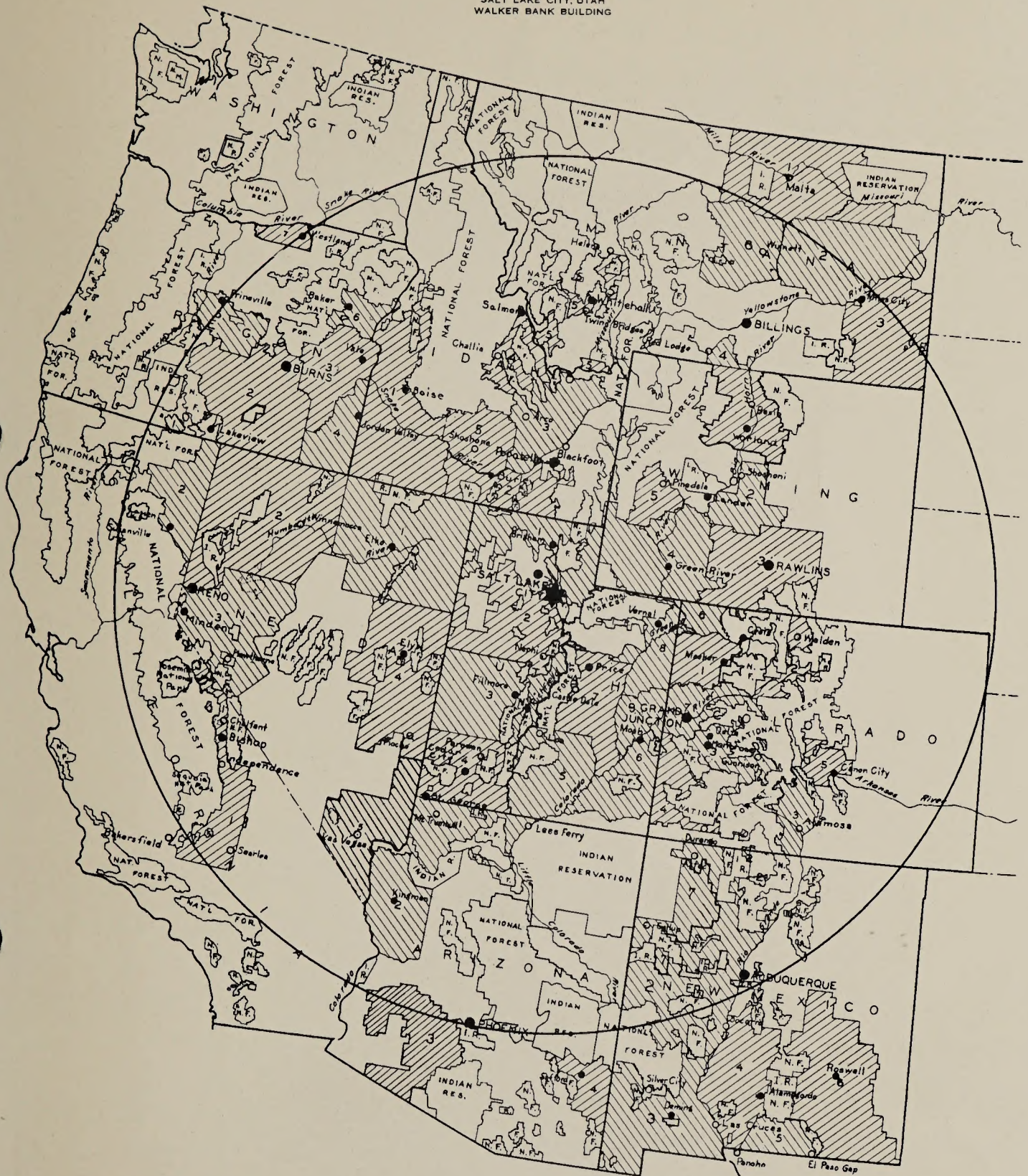
| State and District | No. of Licenses | Cattle | Numbers of Livestock | | Goats | Total Livestock |
|--------------------|--------------------|---------|----------------------|-----------|--------|--------------------|
| | | | Horses | Sheep | | |
| Arizona | | | | | | |
| Hurricane (1) | 238 | 17,737 | 1,423 | 227,016 | 12,954 | 259,130 |
| Kingman (2) | 92 | 28,674 | 781 | 13,354 | 6,996 | 49,805 |
| Maricopa (3) | 50 | 7,218 | 203 | | | 7,421 |
| Safford (4) | 216 | 20,904 | 790 | 925 | 10,491 | 33,110 |
| Total | 596 | 74,533 | 3,197 | 241,295 | 30,441 | 349,466 |
| California | | | | | | |
| Mojave (1) | 208 | 24,496 | 714 | 135,669 | 1,017 | 161,896 |
| Honey Lake (2) | 467 | 45,449 | 2,633 | 99,546 | 144 | 147,772 |
| Total | 675 | 69,945 | 3,347 | 235,215 | 1,161 | 309,668 |
| Colorado* | | | | | | |
| Meeker (1) | 190 | 19,988 | 4,456 | 136,228 | 30 | 160,702 |
| Summit (2) | 167 | 31,067 | 511 | 56,091 | | 87,669 |
| Ouray (3) | 457 | 43,773 | 1,371 | 207,206 | | 252,350 |
| Dolores (4) | 291 | 15,487 | 747 | 123,423 | 65 | 139,722 |
| Yampa (6) | 108 | 3,641 | 430 | 109,396 | | 113,467 |
| Rifle (7) | 494 | 41,126 | 1,469 | 69,533 | | 112,128 |
| Total | 1,707 | 155,082 | 8,984 | 701,877 | 95 | 866,038 |
| Idaho | | | | | | |
| Owyhee (1) | 843 | 71,720 | 6,161 | 449,463 | 66 | 527,410 |
| Twin Falls (2) | 749 | 30,083 | 2,634 | 144,794 | | 177,511 |
| Lost River (3) | 921 | 20,775 | 2,548 | 381,480 | | 404,803 |
| Lemhi (4) | 426 | 31,409 | 2,723 | 96,902 | | 131,034 |
| Wood River (5) | 755 | 19,163 | 1,311 | 314,231 | 10 | 334,715 |
| Total | 3,694 | 173,150 | 15,377 | 1,386,870 | 76 | 1,575,473 |
| Montana | | | | | | |
| Malta (1) | 29 | 24,318 | 3,834 | 207,832 | | 235,984 |
| Big Dry (2) | 370 | 13,734 | 5,593 | 157,239 | 8 | 176,574 |
| Powder River (3) | 589 | 36,652 | 5,986 | 239,069 | 11 | 281,718 |
| Bridger (4) | 93 | 4,503 | 395 | 7,330 | | 41,228 |
| Butte (5) | 259 | 27,166 | 1,262 | 13,446 | 10 | 162,184 |
| Roundup (6) | 49 | 13,031 | 2,031 | 82,514 | | 97,576 |
| Total | 1,389 | 119,404 | 19,101 | 856,730 | 29 | 995,264 |

ESTIMATES OF BIG GAME IN FEDERAL GRAZING DISTRICTS

1940

| State | White-tailed deer | Mule deer | Sonora deer | Elk | Moose | Antelope | Rocky Mtn. Bighorn | Desert Bighorn | Mountain goat | Javelina | Black bear | Buffalo | Total |
|------------|-------------------|-----------|-------------|-------|-------|----------|--------------------|----------------|---------------|----------|------------|---------|---------|
| Arizona | 100 | 1,200 | | 50 | | 180 | | 250 | | 320 | | 200 | 2,300 |
| California | | 8,000 | | 187 | | 5,000 | | 450 | | | | | 13,637 |
| Colorado | | 92,125 | | 165 | | 500 | | | | | | | 92,790 |
| Idaho | | 12,920 | | 2,812 | | 9,800 | 1,147 | | 1,073 | | | | 27,752 |
| Montana | 1,245 | 4,895 | | 761 | 90 | 7,386 | | | | | | | 14,377 |
| Nevada | | 19,150 | | | | 8,794 | | 625 | | | | | 28,569 |
| New Mexico | 450 | 12,750 | 50 | 45 | | 14,150 | | | | | 690 | 5 | 28,140 |
| Oregon | | 21,500 | | 50 | | 17,050 | | | | | | | 38,600 |
| Utah | | 46,000 | | 425 | | 595 | 350 | | | | | | 47,370 |
| Wyoming | | 12,200 | | 1,600 | | 27,244 | | | | | | | 41,044 |
| TOTALS | 1,795 | 230,740 | 50 | 6,095 | 90 | 90,699 | 1,497 | 1,325 | 1,073 | 320 | 690 | 205 | 334,579 |

DEPARTMENT OF THE INTERIOR
GRAZING SERVICE HEADQUARTERS
SALT LAKE CITY, UTAH
WALKER BANK BUILDING



- ★ GRAZING SERVICE HEADQUARTERS
- REGIONAL OFFICE
- DISTRICT OFFICE
- ▨ ESTABLISHED GRAZING DISTRICTS

- REGION BOUNDARY
- N. F. NATIONAL FOREST

- I. R. INDIAN RESERVATION
- N. P. NATIONAL PARKS
- N. M. NATIONAL MONUMENTS

Revised March 1940
Revised Feb. 1941

500 Mile Radius From Salt Lake
Gross Area 502,656,000 Acres
Federal Land 307,293,000 Acres

THE NEW NATIONAL HEADQUARTERS OF THE GRAZING SERVICE
IS AT THE CENTER OF FEDERAL RANGE ACTIVITIES



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